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ABSTRACT

The unit provides an introduction to employment service testing for supervisors, interviewers, and employer relations personnel who need a basic knowledge of testing but who do not need to be test technicians. It may also be used as an introductory course for test examiners and counselors. The first part of the guide is an orientation to occupational tests. Part two concerns the nature and purpose of the U. S. Employment Service (USES) Aptitude Tests, particularly the General Aptitude Test Battery and the Nonreading Aptitude Test Battery. Continuing development of USES Aptitude tests is discussed in part three. Part four is devoted to particular clerical skills tests: typing, dictation, spelling, statistical typing, and medical and legal spelling. The purpose and appropriateness of testing, analyzing test results, and the circumstances for the release of tests are considered in part five. A brief review constitutes the concluding section. (AG)

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Introduction to EMPLOYMENT SERVICE TESTING

Employment Office Training Program Unit 41 Part A Instructor's Guide

1973
U.S. DEPARTMENT OF LABOR
MANPOWER ADMINISTRATION

U.S. DEPARTMENT OF HEALTH
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Introduction to
EMPLOYMENT SERVICE TESTING

Employment Office Training Program Unit 41 Part A Instructor's Guide

1973
U.S. DEPARTMENT OF LABOR
Peter J. Brennan, Secretary
MANPOWER ADMINISTRATION

PREFACE

Training Objectives

This training unit provides an introduction to employment service testing for supervisors, interviewers, and employer relations personnel who need a basic knowledge of testing but who do not need to be test technicians. It will also be a useful introductory course for test examiners and counselors.

Content

Training Unit 41 consists of two booklets: Part A, Instructor's Guide, and Part B, Trainee's Handbook. The latter contains a series of visual aids illustrating important points in the training as well as other reference materials and a series of review questions.

Time Required

The estimated training time of the complete unit is 12 hours. Since it is divided into five major sections, convenient stopping places are provided for breaking the unit into two or more separate sessions.

Materials Needed by Trainees

Training Unit 41, Part B, Trainee's Handbook
*USES Interest Check List and Instruction sheet
*USES Booklet, "Doing Your Best on Aptitude Tests"
*GATB Books I and II, B-1002A
*Answer Sheets for B-1002 (IBM or NCS)
*Part 8, B-1002
*Manual for the GATB, Section III, Development
*Manual for the GATB, Section IV, Norms, Specific Occupations
*NATB Books 1 - 8
*USES Typing Test, one sample test
*USES Dictation Test, one sample test
*Combined USES Spelling Test and Dictation Test Answer Sheet
*USES Statistical Typing Test, Specimen Set
*USES Medical Spelling and Legal Spelling Test, Specimen Set
*One copy for each two trainees

Materials Needed by the Instructor

Training Unit 41, Part A, Instructor's Guide
USES Manual Dexterity Board with pegs
USES Finger Dexterity Board with rivets and washers
ES Manual, Part II, Chapter 9000, Employment Testing and Related Techniques

Specimen Set of the GATB Screening Exercises
Specimen Set of the USES Pretesting Orientation Exercises
Specimen Set on Group Pretesting Orientation to the Purpose of Testing
All materials furnished to trainees

Closing the Training Session

At the close of each training session, copies of all test materials and manuals should be collected from trainees and placed in safe-keeping. Testing materials are confidential, a fact which should be impressed upon all trainees.

Explanation of Symbols

The following symbols appear throughout this training unit:

/???/ Indicates questions to be asked by the instructor and to be answered by the trainees.

/Ans/ Indicates the correct answer to be given by the trainees. The instructor should provide the answer, if necessary, only after trainees have had an opportunity to reply.

/BB/ Identifies material to be written on the blackboard by the instructor.

/***/ Indicates suggestions to the instructor or action to be taken by him. Material so identified is not read aloud.

Acknowledgment

This material was prepared in the Division of Counseling, Testing, and Special Worker Services of the United States Employment Service, Manpower Administration.

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BEST COPY AVAILABLE

Instructor's Guide

Introduction to Employment Service Testing

PART ONE--ORIENTATION

I. PURPOSE OF TRAINING

This training is an orientation and appreciation course in employment service testing. It is designed to meet the needs of local office managers, who are responsible for the overall planning and supervision of the testing function in their respective offices, and of interviewers and employer services personnel, who need some knowledge and understanding of the subject but who are not expected to be test technicians.

In addition, while the unit does not provide training on how to administer and score the various kinds of employment service tests, or how to interpret the test results in counseling, it will be a useful introductory course for new test examiners and counselors who are to be subsequently scheduled for specialized training in the use of one or more of the tests described.

The objectives of this training are summarized on page 1 of Part B, Trainee's Handbook.

*** Call on someone to read them aloud.

II. NATURE OF OCCUPATIONAL TESTS

Occupational tests are merely samples of an applicant's behavior or performance under a given set of circumstances. Turn to the chart on page 2 of your Trainee's Handbook.

A. Use of Samples

1. Sampling of iron ore

When we say we are going to test or examine a ton of iron ore for its chemical composition, we do not examine the entire ton. We take a small sample, perhaps one pound, or five one-pound lots, examine them, and from the results we assume that the composition of the entire ton is the same as the sample analyzed.

2. Sampling of blood

Let us take another example. When a doctor gives a patient a blood test, he takes only a few drops, or perhaps a test tube full, and he assumes that the characteristics of this sample apply to all the blood in the patient's body.

3. Sampling of Aptitudes, Knowledge, and Skills

Likewise in occupational testing, in trying to arrive at a knowledge of an applicant's aptitudes or skills, we take a sample of a person's behavior with respect to these characteristics. We give a person a 3-minute dictation test to sample his stenographic ability, for example, and from his performance, we assume that the results represent his general ability along that line.

B. Substitute for Trial on the Job

Through occupational tests we are able to get a fairly good estimate in a short time of an individual's chances for success on certain jobs. This information helps an applicant to make the best use of his skills and potentialities. It helps him to avoid the trial and error which might otherwise be involved in his search for a suitable job.

Experience with testing has demonstrated that there has been a great increase in employers' confidence in the ability of the Employment Service to select good workers.

C. Objective Measures

USES tests provide objective measures of an applicant's skills and aptitudes. The scores achieved by an applicant are not dependent upon the qualitative judgment of the examiner.

III. BASIS FOR OCCUPATIONAL TESTING

Now look at the chart on page 3 of your Trainee's Handbook.

A. Differences Among Individuals

While we may not have given much thought to it, we have all observed how people differ from each other in almost every attribute.

1. Physical differences

In physical measurements, differences are quite apparent. Height, for example, is a physical attribute in which individual differences are readily apparent, ranging from the very short to the very tall. Weight is another example. Shoe size is still another.

2. Skill differences

The same principle applies to skills and the ability to acquire them. School success is something we are all familiar with. We know that some students can grasp algebra easily while others have great difficulty. Some students can do well in art, while others do poorly.

In work situations, too, some people are outstanding while others are less successful. Thus, differences between individuals do exist. Similarly, some people do better than others on tests of ability.

B. Differences Within Individuals

You will note from the picture chart on page 4 of your Handbook that not only do people differ from each other, but people also vary within themselves. Thus, a person will very rarely excel in every subject and in every occupation. Neither will he be a complete failure in every subject or occupation. Most people tend to do better in some things than in others.

As you see in the chart, Lillian does well in art, but not so well in math; while Ken does well in math, but poorly in art. Similarly, Jerry is a good welder and painter, but is not a good pianist and teacher, whereas Millie is a good teacher and milliner, but a poor dancer and welder.

C. Differences Are Measurable

So far, we have seen that differences do exist both among individuals and within each one. This fact would be of little help if such differences could not be measured.

However, just as height, weight, and school success can be measured, so can the occupational skills and potentialities possessed by people. Occupational tests, therefore, are designed to assist in determining an individual's occupational strengths and weaknesses.

Look at the chart on page 5 of your Handbook. Experiments in the field of measurement show that most measurable traits are distributed in a certain way. Let us use height as an example, although we might use numerical ability or any number of other traits for the same purpose.

The curve shown on this chart represents the way many traits are distributed in the general population and is called the curve of normal distribution. For example, if we were to measure the heights of a large number of men, we would probably find that the heights of the majority of them would cluster around the average, and that

as we go further and further away from the average (either above or below it) there are fewer and fewer taller men or shorter men.

IV. KINDS OF EMPLOYMENT SERVICE TESTS

The Employment Service uses proficiency tests, aptitude tests, and interest inventories, developed or approved by USES.

A. Aptitude and Proficiency Tests

Let us look at the difference between aptitude and proficiency tests as shown on page 6 of your Handbook. Aptitude tests measure potentiality for acquiring skill in an occupation. They are, therefore, primarily useful with persons who have had no experience or training in an occupation which they are considering. Proficiency tests, on the other hand, measure skills that have already been acquired from education, training, or experience, as in the case of stenographers and typists.

B. Interest Inventories

1. Interest Check List

The USES Interest Check List (ICL) is comprised of 173 sample tasks in a large variety of work activities. The applicant is asked to indicate for each activity, whether he would like this activity, dislike it, or is not sure whether he would like it or not. When he has finished the Check List, he is asked to go back and double check the three activities which he thinks he would like the most.

*** Pass out copies of the ICL for trainees to examine. Point out that it is <u>not</u> really a test since it is not scored. It is merely an interviewing aid which the counselor may use in exploring the applicant's interests and in relating them to fields of work.

The counselor endeavors to substantiate expressed interests by discussion with the applicant to determine their basis and significance.

2. Kuder

The use of the Kuder Preference Record-Vocational is also authorized on a request basis. Since the Kuder is standardized, it has one dimension which the Interest Check List does not have. It measures the relative strength of each area of interest. The test consists of several hundred

activities, arranged in groups of three. For each group, the counselee is asked to indicate which one of the three activities he would like the most and which he would like the least. From these responses, a percentile score is derived for several broad areas: outdoor work mechanical, computational, scientific, persuasive, artistic, literary, musical, social service, and clerical. Tables relate each interest area to specific occupations.

V. PROFICIENCY TESTS

Turn to page 7 of your Handbook. As we mentioned earlier, those tests which are designed to measure skills already acquired are called proficiency tests. We use two kinds of proficiency tests: Clerical Skills Tests and Educational Achievement Tests.

A. Clerical Skills Tests

Clerical skills tests are samples of an individual's work performance in certain clerical tasks. The Employment Service uses such tests to measure the following clerical skills:

Typing	Statistical Typing
Dictation	Medical Spelling
Spelling	Legal Spelling

B. Educational Achievement Tests

1. BOLT

The USES Basic Occupational Literacy Test (BOLT) is an educational achievement test in basic reading and arithmetic skills for disadvantaged adults. Separate scores are obtained for Reading Vocabulary, Reading Comprehension, Arithmetic Computation, and Arithmetic Reasoning. These scores are used to determine the applicant's General Educational Development (GED) level in Reading Vocabulary, Reading Comprehension, Arithmetic Computation, and Arithmetic Reasoning. The applicant's GED's can then be compared with the Language and Mathematics levels of the various occupations listed in the Dictionary of Occupational Titles (DOT).

The applicant's GED levels may be used as an entry to the Worker Trait Groups in Volume II of the DOT and, hence, is useful in counseling in the exploration of possible job goals and in determining whether to refer applicant for remedial education.

2. Wide Range Scale

The BOLT has separate sub-tests at several levels of difficulty. Consequently, some means is needed to determine the appropriate level to administer each applicant. The number of years of education completed by the applicant is not, by itself, a reliable indictor, so a brief objective test is needed as a supplement. This is provided by use of the Wide Range Scale, which is administered informally as a part of the counseling interview.

VI. APTITUDE TESTS

Turn to page 8 of your Trainee's Handbook. As we mentioned earlier, tests which are desinged to measure a persons's potentiality for acquiring skill in an occupation are called aptitude tests. There are two kinds of aptitude tests:

Paper-and-pencil tests
Apparatus tests

A. Paper-and-Pencil Tests

Many aptitude tests are prepared for answering with a pencil on the test sheet itself, or on a separate answer sheet. These are known as paper-andpencil tests. In our discussion of aptitude tests later on we will distribute copies of paper-and-pencil tests so you can see what they look like.

B. Apparatus Tests

In the Employment Service we use apparatus tests to measure finger dexterity and manual dexterity.

C. Aptitude Test Batteries

When combinations of single aptitude tests, either paper-and-pencil, apparatus,or both, are used to predict occupational success, those combinations are called aptitude test batteries.

VII. PRACTICAL NATURE OF ES TESTS

Turn to page 9 of the Handbook. Considerable research and experimentation have been done to arrive at a group of tests which could be used in the practical operations of a local office. ES tests have the following practical advantages:

First, specific, clear instructions have been prepared so that it is easy to learn to administer, score, and interpret the tests in a relatively short time.

Second, the two pieces of apparatus required are compact, portable, and relatively inexpensive.

Third, ES tests require comparatively little time for administration.

Fourth, the main advantage of ES tests is that their relationship to occupational success has been established. Therefore, they can be used with some assurance that the results have significance in terms of occupations.

VIII. WHAT TESTS CAN DO IN A LOCAL OFFICE

With the information you now have on what tests are and the kinds of occupational tests available in the Employment Service, in what functions of the local office do you think testing can play a helpful role?

BB Write the following on the blackboard.

Counseling
Classification
Selection for jobs or training

A. Counseling

Tests are helpful to the counseled applicant in suggesting kinds of work which may be suitable.

B. Classificaion

More accurate classification of an applicant is often made possible by objective evidence of his potentialities for success or by demonstration of his acquired skills.

C. Selection

1. Advantages

Local offices will find USES tests very helpful in selecting applicants for jobs or training. Experience has shown that, where appropriate tests are available, applicants selected with the help of tests tend to be better workers and to have less turnover than workers not so selected.

2. Cautions

While tests are valuable tools when properly used, local office personnel should guard against over reliance on testing. Selection should never be made on the basis of test results alone, but only in combination with all other pertinent data, such as interests, work experience, level of education, specific training, leisure-time activities, age, physcial characteristics, and family influences. Keep in mind also that:

1. We do not have tests for all occupations.

2. Some USES tests are not appropriate for applicants who are deficient in reading and arithmetic skills.

3. Continuing research is going on to increase the occupational coverage of present tests and to validate the tests with minority group individuals.

It is essential that USES aptitude tests be used only for occupations for which tests have been validated. No a priori norms are to be used. Thus, in the absence of specific aptitude test norms for a given occupation, it is never permissible to try to guess the key aptitudes or the levels of each which would be required.

PART TWO--USES APTITUDE TESTS: NATURE AND PURPOSE

I. COMPOSITION OF AN APTITUDE TEST BATTERY

We learned earlier that an aptitude test battery is made up of several single tests used in combination to predict occupational success. All USES aptitude test batteries are assigned identification numbers for easy reference.

II. KINDS OF APTITUDE TEST BATTERIES

There are three kinds of USES aptitude test batteries: Specific Aptitude Test Batteries (SATB's), the General Aptitude Test Battery (GATB), and the Nonreading Aptitude Test Battery (NATB), which contains nonreading measures of all of the aptitudes in the GATB and the SATB's.

A. Specific Aptitude Test Batteries

1. Nature

A Specific Aptitude Test Battery is a group of tests, developed by experimental research, and designed to measure the aptitudes and the levels needed to learn to perform the tasks involved in a given occupation, or small group of related occupations. For example:

S-180 Key Punch Operator
S-25 Drycleaning Occupations, Selected

2. How Developed

Historically, SATB's were developed before the GATB and, hence, were different tests. Later, following the development of the GATB, the original SATB's were gradually replaced by new ones which were made up of selected parts of the GATB in place of the earlier tests.

These SATB's were developed scientifically by testing large numbers of employed workers in the occupations covered and determining the cutting scores which differentiated the more proficient workers from the less proficient ones.

3. Purpose

There are several hundred SATB's, which are used primarily in assisting interviewers to select applicants for referral to entry jobs where the employer will train or to formal training where appropriate.

It is important to remember, however, that aptitudes are not the only factors which determine the success or failure of a worker. Aptitude tests, therefore, should not be thought of as being a substitute for the interview. They are, however, objective measures of one factor (aptitude) which is an important aspect of job success.

Another thing to remember about aptitude tests is that they are used only to help predict what a person will be able to do in a job situation after he has been given training. Therefore, if an employer wants to hire an experienced worker who can produce today, an aptitude test cannot help to select the kind of worker he needs now and should not be used. In other words, aptitude test results are no substitute for job experience or training.

B. General Aptitude Test Battery

1. Nature

The General Aptitude Test Battery (GATB) has been related to a large variety of occupations and is used when we wish to determine which of many occupations or fields of work would be most suitable for a particular applicant. There are two editions of the GATB:

B-1001, the original edition in which the answers are written in the test booklets.

B-1002, the separate answer-sheet edition, of which there are two alternate forms: A and B. Additional forms are being developed.

2. How developed

At the outset of the ES testing program in 1935, separate tests were constructed to predict success in different occupations. On the basis of studies with a large number of tests, 10 aptitudes were identified as basic to successful performance of large numbers of jobs. These were measured by 15 tests in the original edtion of B-1001, released in 1945. Subsequent research reduced this number to 9 aptitudes and 12 tests, in B-1002, which was released in 1952.

3. Purposes

a. Counseling

The GATB is intended to assist the counselor in appraising the aptitudes of an applicant. Test information, when considered together with information on his interests, leisure-time activities, work record, school achievement and other pertinent factors is of value in assisting the applicant to develop a sound vocational goal and plan.

b. Experimental battery

The GATB has an additional use as an experimental battery in test development studies designed to develop and cross validate new SATB's. We will discuss the test development process later in this training.

C. Nonreading Aptitude Test Battery

The Nonreading Aptitude Test Battery (NATB) is designed for use with disadvantaged individuals who lack sufficient literacy skills to take the GATB. The NATB measures the same 9 aptitudes, and, hence, utilizes the same occupational norms as the GATB.

1. Nature

No reading is required of the examinee, as complete instructions are given orally by the examiner. The examinee marks his answers in the test booklets by blackening small circles beside the objects pictured in the booklet.

2. Development

Research on the NATB was initiated in 1963 by soliciting ideas from State agencies on types of tests and approaches to be used in the research. Following the development of the experimental battery, 17 States participated in the tryouts. The complete battery was released to the field for operational use in 1971.

3. Purpose

The NATB (like the GATB) is intended to assist the counselor in appraising the aptitudes or potential abilities of an applicant.

Test information, when considered along with information regarding interests, leisure-time activities, work record, school achievement, and other factors, is of value in assisting the applicant to develop a sound vocational goal and employability plan. However, in many instances remedial education may be a necessary first step in implementing the plan.

III. BECOMING ACQUAINTED WITH THE GATB

Since it is not our purpose here to develop counselors or test examiners, we won't administer the GATB to you. However, I think you will find it interesting and worthwhile to examine the test battery and learn what the 9 aptitudes are and how they are measured.

A. Examination of GATB

/***/ Distribute one copy each of Books I and II of B-1002A, Part 8, and the booklet "Doing Your Best on Aptitude Tests" to each trainee.

1. Separate booklets

Each of you now has the booklets containing all of the paper-and-pencil tests of the GATB. Let us now spend a few minutes looking over the tests that make up that battery. The paper-and-pencil tests are always given in the same order, but they are divided into books (plus a single sheet) thus allowing time for recess.

Now turn to the General Directions on page 2 of Book I. (Allow time for looking over those directions.)

2. Format of tests

Now turn to Book I, Part 1, page 3. Each paper-and-pencil test contains information covering:

-- Number of the test which is given as Part 1, Part 2, Part 3, etc.

-- A brief statement of what is to be done by the examinee. That explanation introduces him to the test situation itself.

-- A few sample exercises illustrating clearly what the examinee is to do and the procedure for working each exercise.

-- Next the examinee tries a few practice exercises. The examiner then determines whether or not the applicant understands the instructions. If the examinee answers a practice exercise incorrectly, he is given further instructions until he gets the idea.

-- The time limit and other instructions follow the practice exercises. It is important to adhere to time limits precisely in testing sessions.

-- The test proper is then administered, observing strict time limits. More items are usually included than can be finished in the allotted time.

/***/ Refer trainees to the chart on page 10 in the Trainee's Handbook.

B. Aptitudes Measured

This chart shows each part of the GATB and the aptitude which it measures. Look at Part 1 on page 3 of Book I.

Q - Part 1

/???/ What does Part 1 measure?

/Ans/ Clerical Perception.

Notice that the test proper, which begins on page 4, consists of two columns of names. The examinee inspects each pair of names, and indicates whether they are the same or different.

Clerical Perception is defined as the ability to perceive pertinent detail in verbal or tabular material. It is the ability to observe differences in copy, to proofread words and numbers, and to avoid perceptual errors in arithmetic computation. It is a measure of speed of perception which is required in many industrial jobs, even when the job does not have verbal or numerical content.

N - Parts 2, 6

/???/ What does Part 2, found on page 9, measure?

/Ans/ Numerical Aptitude.

/???/ What other part also measures Numerical Aptitude? How do the two parts differ?

/Ans/ Part 6. Part 2 involves simple arithmetic computation, as indicated by both words and symbols, whereas Part 6 involves reasoning ability, since the examinee must decide whether it is necessary to add, subtract, multiply, or divide in order to solve the problem.

We define Numerical Aptitude as the ability to perform arithmetic operations quickly and accurately.

S - Part 3

/???/ What does Part 3 measure?

/Ans/ Spatial Aptitude.

This test, found on page 16, Book I, consists of a series of exercises containing what is called a stimulus figure and four drawings of three-dimensional objects. The stimulus figure is pictured as a flat piece of metal which is to be either bent, or rolled, or both. Dotted lines indicate where the stimulus figure is to be bent. The examinee indicates which one of the four drawings of three-dimensional objects can be made from the stimulus figure.

Spatial Aptitude is the ability to think visually of geometric forms and to comprehend the two-dimensional representation of three-dimensional objects.

V - Part 4

/???/ What does Part 4 measure?

/Ans/ Verbal Aptitude.

The items in this test, found on page 26 of Book I, consist of sets of four words. The examinee indicates which two words have either the same or opposite meanings.

G - Parts 3, 4, 6

/???/ How is Intelligence measured?

/Ans/ A combination of Parts 3, 4, and 6.

"G", or Intelligence, is defined as general learning ability; the ability to "catch on" or understand instructions and underlying principles; the ability to reason and make judgments. It is closely related to doing well in school.

P - Parts 5, 7

/???/ What two parts measure Form Perception?

/Ans/ Parts 5 and 7, found on pages 4 and 18 of Book II.

Form Perception is the ability to perceive pertinent detail in objects or in pictorial or graphic material. Ability to make visual comparisons and discriminations and to see slight differences in shapes and shadings of figures and in widths and lengths of lines.

K - Part 8

/???/ What part measures Motor Coordination?

/Ans/ Part 8.

Motor Coordination is the ability to coordinate the eyes and hands or fingers rapidly and accurately in making precise movements with speed--ability to make a movement response accurately and swiftly. It is probably related to reaction time.

M - Parts 9, 10

/???/ What two parts measure Manual Dexterity?

/Ans/ Parts 9 and 10.

These two parts are given on an apparatus board called the Pegboard which consists of a rectangular wooden board divided into two sections, each containing 48 holes. The upper section contains 48 cylindrical wooden pegs.

/***/ Exhibit board and demonstrate briefly while talking.

For Part 9 the examinee removes the pegs from the holes in the upper part of the board and inserts them in the corresponding holes in the lower part of the board, moving two pegs simultaneously, one in each hand. The examinee is given three test trials to move as many pegs as possible during the time allowed.

For Part 10, the lower part of the board contains 48 pegs. The examinee removes a peg from a hole, turns the peg over so that the opposite end is up, and returns the peg to the hole from which it was taken, using only the preferred hand. The examinee is given three trials to remove and turn as many pegs as possible during the time allowed.

Manual Dexterity is the ability to move the hands easily and skillfully--the ability to work with the hands in placing and turning motions.

F - Parts 11, 12

/???/ What do Parts 11 and 12 measure?

/Ans/ Finger Dexterity.

This ability is measured by another piece of equipment called the Finger Dexterity Board, which consists of a small rectangular board containing 50 holes in the upper part, 50 holes in the lower part, and a supply of metal rivets and washers. (Exhibit board and demonstrate.)

For Part 11, the examinee takes a rivet from a hole in the upper part of the board with his preferred hand and at the same time removes a washer from the vertical rod with the other hand. The examinee puts the washer on the rivet and inserts the assembled pece into the corresponding hole in the lower part of the board.

In the last test, Part 12, the examinee removes the rivet of the assembly from a hole in the lower part of the board; slides the washer to the bottom of the board; puts the washer on the rod with one hand and the rivet in the corresponding hole in the upper part of the board with the other hand.

Finger Dexterity is ability to move the fingers and manipulate small objects with the fingers rapidly and accurately.

IV. BECOMING ACQUAINTED WITH THE NATB

Since it is not the purpose of this training unit to train counselors or test examiners, we won't administer the NATB to you. However, I think you will find it interesting and worthwhile to examine the NATB briefly just as you did the GATB.

A. Examination of the NATB

/HHH/ Distribute copies of NATB Books 1 through 8 to trainees for a brief examination.

1. Separate booklets

There are 9 paper-and-pencil tests contained in these 8 test booklets.

/???/ What two tests are contained in Book 1?

/Ans/ Test A Picture Word Matching and
Test B Oral Vocabulary

/HHH/ Call on trainees to look at Books 2-8 and name the tests contained in each one.

2. GATB Tests

The NATB also uses the Mark Making Test and the Manual and Finger Dexterity Tests from the GATB.

This makes a total of 14 separate tests for the NATB compared with 12 for the GATB.

B. Antitudes Measured

Refer trainees to the chart on page 11 in the Trainees Handbook

Which tests measure Aptitude G? Aptitudes V, N, and P?

Ans Tests A, B, D, and F; Tests A and B; B, C, D, and H; I and G

V. UNDERSTANDING APTITUDE TEST RESULTS

Whenever it appears that aptitude test results would be helpful for counseling or selection, an appointment is made for testing.

A. Use of Test Appointment Form

Have trainees turn to the facsimilies of form MA 7-39, Test Appointment Form, on pages 12 and 13 of the Trainee's Handbook.

If there is any doubt whether the applicant has sufficient basic education to take the GATB, this can be resolved by administering the GATB Screening Exercises. This will usually determine whether he should be given the GATB or the NATB.

If the applicant is unfamiliar with tests or uneasy about being tested, he may be given a copy of the booklet, "Doing Your Best on Aptitude Tests" at the time the appointment is made for testing.

If the problem appears severe, he may be scheduled for the USES Pretesting Orientation Exercises or a group session on Pretesting Orientation on the Purpose of Testing.

1. Scheduling for Testing

Scheduling is accomplished by completing Form MA 7-39 in duplicate, indicating when and where the applicant is to report and what tests are to be administered. The original is forwarded to the testing unit as a confirmation copy, and the duplicate is given to the applicant as his written notice of when and where he is to report. This copy also serves as a convenient identification when he returns to keep his appointment.

2. Notification of Test Results

After scoring, the testing unit enters the test results on the reverse side of Form MA 7-39 and and returns it to the counselor or interviewer who made the referral.

B. Understanding Test Results

Aptitude test results provide two types of information helpful to counselors and placement interviewers:

1. Aptitude Profile

First, the individual's GATB or NATB aptitude scores. This provides the counselor with some useful information on the applicant's general level of ability, as well as his strengths and weaknesses, since the average aptitude score of the general working population is 100. Thus any aptitude score significantly above 100 indicates that the applicant is above average in that aptitude. A score significantly below 100 would indicate that he is below average.

2. SATB's

Second, if the applicant was tested for one or more SATB's, the battery numbers will be entered in the right-hand column on the reverse side of Form MA 7-39. There are three possible grades:

a. Grade H. If the battery number is circled in red, this indicates that the applicant's test scores equaled or exceeded the aptitude norms established for that SATB. If he is also qualified on the basis of other factors, the chances of his being successful in that occupation are good.

b. Grade M. If the battery number is circled in black, this means that the individual's scores lie within the Standard Error of Measurement (SEm) and, hence, are close to those of workers judged to be successful in that occupation. The chances of his doing well in this kind of work are somewhat less than that of persons in the H category. However, if other factors are favorable, he may be considered for this occupation.

c. Grade L. If a horizontal line is drawn through the battery number, this means that the individual's scores are similar to or below those of workers found to be poor or unsatisfactory

in that occupation. The chances of such an applicant being satisfactory on the job are small, and he should be considered for other jobs which utilize his stronger aptitudes.

/***/ If more information is desired on the SEm, see ES Manual, part II, sections 9311, 9312, 9315, and 9357.

3. GATB

If applicant has been referred to the GATB or NATB for counseling purposes, the testing unit will indicate the Occupational Aptitude Patterns (OAP's) met by circling the OAP number in red for Grade H, circling the OAP number in black for Grade M, and drawing a horizontal line through the number for Grade L.

The OAP's are used only for counseling. Since they are groups of occupations with varying aptitude requirements, they are not specific enough to be used for selection. In addition, there are some SATB's which are not included in any OAP. Consequently, the counselor may request the testing unit to score for certain of these non-included SATB's as well as for the OAP's.

4. NATB

Special video tape materials have been developed to train local office personnel on administration and use of the Nonreading Aptitude Test Battery (NATB).

5. Machine Scoring

When the volume of testing is large and the test results are not needed immediately, answer sheets may be mailed to the National Computer Systems (NCS), Minneapolis, Minnesota for machine scoring. The scoring machine automatically scores the answer sheets, computes aptitude scores, matches them with the OAP norms, and prints out an NCS Test Record Card. See sample on page 14 of your Trainee's Handbook. A gummed permascore label (to be attached to another record form) may also be obtained if requested.

Grades are shown on the NCS Test Record Card by entering the letters H, M, or L in the space below each OAP number. SATB's are not scored by NCS.

PART THREE--EXTENDING COVERAGE OF USES APTITUDE TESTS

I. CONTINUING RESEARCH

Continuing research in expanding the occupational coverage of the GATB is being carried on by the Manpower Administration in cooperation with State agencies. This research develops additional SATB's, which are useful for both selection and counseling. Frequently, these new SATB's can be fitted into one of the existing OAP's. Where this is not the case, they may still be used by the counselor to supplement the OAP structure.

II. STEPS IN DEVELOPMENT OF APTITUDE TEST NORMS

The development of aptitude test norms for a specific occupation is rather involved. In order to give you a better understanding of this process, let's break it down into steps:

A. Job Analysis

Turn to the chart on page 15 in your Trainee's Handbook. Since test batteries are prepared for occupations, it is important to know precisely the duties of each job for which the battery is to be developed. The first step, therefore, is an analysis of the job, indicating the duties performed and the skills, knowledges, and abilities required.

B. Selection of Criterion

Turn to page 16 in your Handbook. The next step is to find some way to measure the success of workers now employed, some way to differentiate the group of workers employed successfully from those who are not successful, and some way to determine those employed in an occupation from those not employed in it.

1. Criterion defined

The standard of job proficiency used as the measurement of job success for those persons in the experimental sample is called the criterion. This standard may vary from job to job, but, for any one test battery, it is the standard against which the tests that are tried out are evaluated.

2. Types of criteria

Criteria of job success are of many different kinds, such as:

Production records - Objective
Supervisor's rating - Subjective

Frequently, one criterion of success is insufficient to distinguish clearly the successful workers. In these cases, combinations of criterial may be used.

3. Factors in selecting criteria

The following factors are considered in selecting the criteria:

1. Validity or relevance is the prime requisite of a criterion measure. That is, the knowledge, skills, and basic aptitudes measured must be the same as those required for the performance of the job.

2. Reliability is a necessary but not a sufficient condition for a criterion to be a valid measure of success.

3. The criterion must be free of bias. Bias may operate to reduce either its relevance or its reliability or both.

4. The methods used for gathering criterion data must be practical. The amount of disturbance of routine procedures and of additional work on the operating personnel of an organization must be carefully evaluated or it may be resented.

4. Difficulties in choosing criteria

Difficulties arise in choosing or finding adequate criteria. Frequently standards of job performance do not exist, production records are not kept, supervisors find it difficult to rate persons on ability without allowing outside considerations, like appearance or personality, to creep in.

For Bookkeeping Machine Operators, the criterion might be speed in preparing a certain number of bills, or ratings of all workers for their ability by the supervisor.

C. Testing Experimental Sample

Turn to chart 17 in your Handbook. An experimental battery is a group of tests administered to an experimental sample for research purposes. The GATB and the NATB are the two experimental batteries used in USES test developmental studies to develop aptitude test norms for specific occupations. In such instances, the entire GATB (or NATB) is administered to the experimental sample.

1. Experimental sample defined

An experimental sample is a group of applicants, employees, trainees, apprentices, students, or other individuals tested for research or test development purposes.

2. Selection of sample

A sample consists of persons who are all performing the same job duties or receiving the same instruction and who meet the requirements with respect to factors such as age, education, and experience.

3. Number to be tested

When planning a test development study the experimental sample to be tested should be as large as possible, since the larger the sample the greater confidence we can have in the results obtained.

National test norms will only be established on final samples of at least 60 persons, 30 members of a specific minority group and 30 non-minority group individuals. If an employer does not have 60 workers who perform the same job duties, it may be possible to include additional workers in other locations in order to increase the size of the sample.

Experience in conducting test development studies has shown that, after the collection of the test data, some workers may have to be excluded because of the incompleteness or inadequacy of the data, or because they are not representative of the workers generally found in the occupation being studied. Thus, to have at least 60 workers remaining in the final sample, it is sometimes necessary to include 80 or more workers initially.

The same general procedure is followed when the experimental sample consists of applicants, trainees, or students.

D. Statistical-Analytical Treatment

Look at chart 18 in your Handbook. Once the GATB has been administered to the experimental sample, the next step is to find what relationship the tests bear to successful performance of the job. This relationship is determined by statistical analytical methods.

After these statistical computations are made, the "key aptitudes" for the occupations are selected.

Then, a determination is made as to which combination of significant aptitudes and cutting scores will yield the best selective efficiency in terms of the criterion of the experimental sample.

E. Establishment of Test Norms

The test scores obtained from the sample provide us with normative data so that we can set a minimum score for each key aptitude. These minimum aptitude scores become our norms for selection.

An applicant qualifies only if he meets the minimum score on each of the key aptitudes (Grade H). However, under certain conditions, as we discussed earlier, he may be considered if he falls within one Standard Error of Measurement (Grade M).

Now let us look at an actual example of a test development study.

/***/ Pass out copies of the Manual for the GATB, Section III, Development.

Turn to pages 56-57 and look at the study of Case Worker.

/???/ What did the experimental sample consist of?

/Ans/ 106 employed workers.

/???/ What criterion was used?

/Ans/ Supervisory ratings based on yearly performance ratings.

/???/ What were the 3 key aptitudes finally arrived at and what were their cutting scores?

/Ans/ G-105, V-105, N-105.

How effective were these norms?

If these test norms had been used for selection, 56% of the poorer workers would not have been hired, and 79% of those hired would have been good workers.

F. Check Studies and Followup Studies

After the norms have been established on one sample for an occupation, check studies should be conducted to verify the results of the original study.

A check study is essentially the repetition of a test development study which resulted in test norms for a particular occupation on another sample of employed workers, applicants, trainees, apprentices, or students for the same occupation, using either the GATB or the NATB.

A followup study is conducted to verify that test norms are working operationally the way the original research indicated they would.

The sample used in the original study is generally referred to as the "validation sample:" the one used in the check study is referred to as the "cross validation sample."

G. Validity

Validity is the extent to which test performance is related to job performance. A valid test is one which will predict, with reasonable accuracy, an individuals's performance in an occupation. Two types of validity are used:

1. Predictive

Predictive validity shows how well test scores correspond to measures of job performance obtained at some later date. For example, applicants may be tested with the experimental battery before referral to an employer and then rated for job performance after they have worked long enough to have acquired proficiency.

2. Concurrent

Concurrent validity shows how well test scores correspond to measures of job performance obtained at the same time. For example, a group of employed workers may be tested with the experimental battery and then rated for job performance immediately.

Both concurrent and predictive validity are used to predict future job success.

The validity of a test battery is expressed by a two-digit decimal known as a correlation coefficient, and indicates the degree of likeness between meeting the test norms and the measure of job performance.

III. TEST DEVELOPMENT TO MEET EMPLOYER NEEDS

We have pointed out that continuing research is being conducted to develop aptitude test norms for additional occupations, and we have discussed the various steps involved in a test development study.

Let's assume that your Employer Relations Representative (ERR) is talking with an employer who is having considerable trouble getting good workers for a certain occupation. He is concerned that so many of the workers he hires fail to become proficient in the job and quit or have to be separated. He wonders if you have some better means of selection for this job. If he could reduce his turnover, it would mean a substantial saving to the plant in training time and operating costs.

/???/ How would the ERR determine whether or not we have aptitude norms for that occupation?

/Ans/ First, refer to the alphabetical listing in Section IV of the Manual for the USES General Aptitude Test Battery, if that has been kept up to date by pen-and-ink additions. Then consult with the testing unit to verify suitability.

/???/ If he ascertains that we have no SATB for that occupation, what should the ERR tell the employer?

/Ans/ Tell him that we don't have a suitable test at present but that it may be possible to develop one, if he is willing to have his employees participate in a test development study. Then explain briefly what would be expected of him if such a study were undertaken. Offer to bring this matter to the attention of the test development specialist, who will determine the feasibility of this particular study.

(***) Have trainees return to "Requirements for a Test Development Study" on page 19 of the Trainee's Handbook. Call on trainees in turn to read a paragraph aloud while the others follow with their copies.

These, then, are the essential conditions that must exist in order to undertake a test development study with any degree of assurance of its success. However, even though the conditions are met, we cannot guarantee that we will be successful in developing a suitable test battery. There are so many things that may operate against "coming up" with a valid test. For example, it may be possible that aptitudes aren't of primary importance on the job; perhaps it is not possible to get a good measure of job success for each worker in the sample; or maybe subsequent investigation will show that all workers aren't really performing identical tasks on the job.

The USES Test Development Guide contains very detailed instructions and explanations on the procedures which are followed in conducting a study of this kind. It is issued in two volumes as follows:

Vol. I -- Methodology
Vol. II -- Derivation of Norms and Illustrative Experimental Designs

In addition to this Guide, the Regional office of the Manpower Administration provides training to State agency personnel in test development when such training cannot be done within the State. In this way State agency personnel can be trained to develop test batteries to meet employer needs.

PART FOUR--CLERICAL SKILLS TESTS

1. GENERAL CONSIDERATIONS

This portion of the training provides a brief overview of the nature and use of clerical skills tests and how to interpret test results. There are six kinds of USES clerical-skills tests:

Typing	Statistical Typing
Dictation	Medical Spelling
Spelling	Legal Spelling

A. Nature of the Tests

In contrast to aptitude tests, which are measures of potential ability, clerical skills tests measure acquired skills or proficiency. Hence, they are often referred to as proficiency tests.

B. Restricted Use

Because of the limited number of test forms available and the susceptibility of the tests to the effects of practice, USES clerical skills tests are available for use only by the State Employment Services affiliated with the U.S. Employment Service. They are never released to other organizations.

C. Retesting

The skills measured by the USES Typing Test, Dictation Test, and Statistical Typing Test can be improved through practice and deteriorate with lack of use. Therefore, an individual who does poorly on one of these tests because of lack of recent practice may be encouraged to gain additional training or practice and be scheduled for retest at a later date. An alternate form of the Typing Test or Dictation Test should be used for the retest.

The skills measured by the Spelling Test, Medical Spelling Test, and Legal Spelling Test are developed over a longer period of time and are less responsive to short-term practice. There is ordinarily no reason to retest with these tests unless the individual has had substantial intervening experience relating to the skill in question.

An individual may be scheduled for immediate retest with any of the clerical skills tests (using an alternate form of the test, if one is available)

if the testing is interrupted, if testing equipment malfunctions, if the individual is extremely nervous, becomes ill, or it is discovered that he has forgotten his glasses or was not otherwise capable of his best performance on the test.

D. Grading System

An examinee's raw scores on USES clerical skills tests mean little until they are compared with some reference group. The reference group for each test is a national sample of workers employed in the occupations in which the skill the test was designed to measure is most important.

An examinee's raw score is converted to a grade in order to compare his performance with the norms. Turn to page 21 in the Trainee's Handbook. Note that the grades range from 1 to 10 and are based on the centile rank in the standardization sample. The highest 10 percent of the scores were assigned the grade of 10, the second highest 10 percent of the scores were assigned the grade of 9, and so down to the lowest 10 percent of the scores which were assigned the grade of 1.

The results of clerical skills tests are entered by the testing unit on the back of Form MA 7-39 Test Appointment Form, which is then returned to the interviewer or counselor who made the referral. The latter is responsible for recording the test results on the application card.

II. TYPING TEST

A. Description

The USES Typing Test is a 5-minute performance test which yields separate measures of the speed and accuracy with which an examinee can type from plain copy.

There are six alternate forms of the test, designated by the letters A to F. Each form consists of three single-paragraph letters, typical of correspondence in various types of organizations. The language is non-technical, but the content relates to the following types of organizations:

Form A - Education
Form B - Government
Form C - Professional Services
Form D - Manufacturing
Form E - Manufacturing
Form F - Finance

An examinee may be administered the form the content of which is most appropriate. However, any examinee may be given any form of the test, since they are interchangeable.

Separate norms are available for manual and electric typewriters.

B. When to Use

It is desirable to administer a typing test to any applicant for an occupation in which typing might be required on the job, regardless of whether the applicant has had work experience in typing or only training.

C. Retesting

An examinee may be retested immediately if his poor performance resulted from typewriter trouble or excessive nervousness. If poor performance is due to being out of practice, the examinee may be encouraged to brush up and return for a retest at a later date. If an examinee's speed is high but his errors excessive, he may be retested to determine if he can improve his accuracy by slowing down.

An alternate form should always be used for retest.

D. Test Results

1. Speed

The speed score is recorded on the back of Form MA 7-39 as the number of words per minute plus a numerical grade (from 1 to 10).

2. Accuracy

Accuracy is indicated by the number of errors made plus a numerical grade (from 1 to 10).

/???/ Sally Blue made 66 wpm on her typing test, using a manual typewriter, and was assigned a grade of 8. What does this mean?

/Ans/ That Sally ranks in the upper 30 percent of employed workers who use manual typewriters and her performance exceeds that of more than 70 percent of these workers.

With separate grades for speed and accuracy, you can see how it is possible to meet varying employer requirements for a typist who is both speedy and accurate or one who must be accurate but not necessarily speedy, etc.

III. DICTATION TEST

A. Description

The USES Dictation Test is a performance test of an examinee's skill in taking dictation. It is given at one of three speeds: 60, 80, or 100 words per minute.

There are six alternate forms of the test, designated as Forms A-F. Each of the two passages in each form consists of a letter typical of correspondence in various types of organizations. The language is nontechnical but the content relates to the following types of organizations:

Form A - Trade
Form B - Manufacturing
Form C - Trade
Form D - Finance-Insurance
Form E - Education
Form F - Government

An examinee may be administered the form which is most appropriate in content. However, either form may be used, as they are interchangeable.

B. When to Use

It is desirable to administer the dictation test to any applicant being considered for a position in which taking and transcribing dictation might be required, whether applicant is experienced or not. Tape recordings of the dictation tests are available to State agencies having equipment for playback.

C. Retesting

An examinee may be retested immediately if he did poorly and would like to take the test at a slower speed, or if his poor performance resulted from excessive nervousness. When an examinee's score is poor because he is out of practice, he may be encouraged to brush up and appear for a retest at a later date. An alternate form of the test should always be used for retests.

D. Test Results

The test results returned to the interviewer or or counselor, will indicate the speed at which the dictation was taken, the accuracy score (out of a possible 125), and the accuracy grade (1 to 10).

IV. SPELLING TEST

The USES Spelling Test is a 10-minute performance test of an examinee's skill in spelling common

A. Description

words. The test consists of 90 words, about half of which are misspelled. The examinee indicates whether he thinks each word is spelled correctly or incorrectly. There are two forms of the test, designated as Form A and Form B.

B. When to Use

It is desirable to administer the Spelling Test to any applicant for a typing, stenographic, or secretarial position in which correct spelling is an integral aspect of successful job performance.

C. Retesting

An examinee may be retested if the test administrator believes that his poor performance resulted from excessive nervousness or other justifiable reason. Otherwise, there should ordinarily be no need for retesting with the Spelling Test, since spelling skill is not affected by short-term practice or experience. The alternate form should be used for a retest.

D. Test Results

The test results reported on Form MA 7-39 indicate the score (number of words correct out of 90) and the numerical grade (1 to 10), which compares the spelling accuracy of this applicant with that of other clerical workers.

V. STATISTICAL TYPING TEST

A. Description

The USES Statistical Typing Test is a 10-minute performance test which yields separate measures of speed and accuracy with which an examinee can type statistical or numerical copy in tabular form.

There is only one form of the test, designated as Form A. The test consists of material set up in columnar format such as that found in cataloged price listings where correctness of numbers and spacing is important.

The same norms may be used for manual or electric typewriters.

B. When to Use

It is desirable to administer the Statistical Typing Test to any applicant for an occupation in which statistical or numerical typing might be required on the job. This applies to applicants with work experience in typing statistical material as well as to applicants who have had experience in general typing but are being considered for job openings involving statistical

typing. It may also be appropriate to administer the plain copy typing test if the job in question involves general as well as statistical typing.

C. Retesting

An examinee may be retested immediately if it appears that his poor performance resulted from typewriter trouble, extreme nervousness, or other justifiable reason. When his typing performance is poor because he is out of practice, he may be encouraged to brush up and appear for a retest at a later date.

Retest scores should be interpreted with some caution, since there is only one form of the test and practice effect may improve performance on the retest.

D. Test Results

The test results reported on Form MA 7-39 include a speed grade (1 to 10) and an accuracy grade (1 to 10).

VI. MEDICAL AND LEGAL SPELLING TESTS

A. Description

The USES Medical Spelling Test and Legal Spelling Test are performance tests of the skill with which an examinee can spell technical medical or legal words. The words used in these tests are not those which a good secretary could correctly spell phonetically. They are words which only a person trained or experienced in either the medical or legal field might be expected to spell correctly.

Each test consists of 40 technical words from the medical or legal field. There is one form for each test. The test examiner pronounces each word twice and allows time for all examinees to print the word on their answer sheets. Administration requires approximately 10 minutes.

B. When to Use

It is desirable to administer the Medical Spelling Test or Legal Spelling Test to any applicant for an occupation in which correct spelling of medical or legal words is an important aspect of job performance.

C. Retesting

An examinee may be retested if it appears that his poor performance resulted from excessive nervousness or other justifiable reason. Otherwise, there should ordinarily be no need for retesting with the Medical Spelling Test or Legal Spelling Test, since these skills are little affected by short-term practice or experience.

Retest scores should be interpreted with caution, since there is only one form of each of the tests.

D. Test Results

The test results reported on Form MA 7-39 consist of a score (number of words spelled correctly out of 40) and an accuracy grade (1 to 10).

PART FIVE--SOME CONSIDERATIONS ON THE USE OF TESTS

I. DECIDING APPROPRIATENESS OF TESTING

After obtaining pertinent information from the applicant during the course of the interview, the interviewer or counselor decides whether or not test results would be helpful in each individual case. Let's consider some of the situations in which test results are most likely to be helpful and the type of test to use.

A. Situations Calling for Testing

/***/ Divide the blackboard space into two columns. Head one "Situation" and the other "Test". Then add the situations one at a time, as they are discussed, together with the appropriate type of test. The resulting chart should appear as follows:

/BB/

Situation	Test
No exp. or training	Aptitude
Occupational change	Aptitude or Prof.
Skills need checking	Proficiency
Selection for specific job(s)	Aptitude or Proficiency
Employer wants applicants selected with use of tests	Aptitude or Proficiency
Applicant fearful of tests	Pretesting Orientation Exercises
Deficient in education	Educational Achievement
	Nonreading aptitude test battery

Persons who lack experience or training and who present problems of finding suitable occupational outlets are often assisted by the use of aptitude tests. Recent school leavers and ex-servicemen whose military experience is not convertible to civilian work are common examples.

Tests may also be helpful for applicants who wish to change occupations. This situation may call for either aptitude or proficiency tests, depending upon the applicant and whether or not he has some clerical skill.

Many applicants seeking clerical jobs are either inexperienced, their experience has not been recent, or their work history has been spotty, and evidence as to their degree of skill is lacking. Such applicants should be referred for proficiency tests.

When selecting for referral, the interviewer should take advantage of any means available to help him place the applicant in a suitable job and at the same time provide a suitable worker for the employer. When there are appropriate tests for the occupations involved, their use will be helpful.

Sometimes employers request that applicants to fill a certain job order be selected with the use of tests. In deciding whether to test a specific applicant for referral, make sure that he meets all the other employer specifications before testing him.

Tests should be used whenever we feel that they would help us do a better job of classification, selection, or referral.

B. Testing the Educationally Deficient

As stated previously, the NATB was developed for use with educationally deficient individuals who lack sufficient literacy skills to take the GATB. The NATB is useful as an indicator of the aptitudes of such persons. However, if an applicant who has been tested with the NATB, or an SATB made up of certain parts of the NATB, lacks the educational skills required for a specific job, he should first be referred to remedial education to acquire such skills.

The USES Basic Occupational Literacy Test (BOLT), scheduled for release soon, is an achievement test for use with the educationally deficient. It is made up of tests of Reading Vocabulary, Reading Comprehension, Arithmetic Computation, and Arithmetic Reasoning at several levels of difficulty. The BOLT yields a standard score and a General Educational Development (GED) level for each part of the test.

The BOLT will supersede educational achievement tests which were approved for use by USES.

C. Testing the Handicapped

Individuals with physical handicaps are not excluded from testing. However, consideration must be given to whether or not the handicap may affect test performance. For example, if the individual has normal use of the preferred hand, he may be administered the paper-and-pencil tests. In such case there would be no difficulty in getting a true score on these tests. If his other hand has limited use, or has been fitted with a prosthetic device, he may also be given the apparatus or proficiency tests, since his score can be interpreted by the standard norms. His score would represent the dexterity he has with whatever hands he has, and will indicate the extent to which he can compete with those not so handicapped. If he has limited dexterity in the use of his hands or a prosthetic device, he would have similar difficulty in successfully pursuing an occupation requiring manipulative ability without further training.

If the individual has such limited use of both hands that he cannot write with normal speed, or if his preferred hand has been amputated, then he should not be given paper and pencil, apparatus, or proficiency tests.

When a handicapped person is tested, notation of the handicap should be made in the comments section of the Test Record Card and the Test Appointment Form. Any handicap which hinders an individual from doing well on the test would be likely to hinder him on the job.

II. PURPOSE OF TESTING

A. Is Test for Counseling or Selection?

If the purpose of testing is for counseling, the GATB, NATB, Interest Check List, Kuder Preference Record, or BOLT may be used. If the purpose is for selection, SATB's or proficiency tests may be called for.

B. Is the Job Description Similar to Employer's Job?

If the test is to be given as an aid to selection, is the job for which the test was developed sufficiently similar to the employer's job to warrant

using the same test? This may be determined by checking the job description on the Fact Sheet or Technical Report for the SATB with the job duties of the employer's job.

C. Is This a Retest?

1. Aptitude tests

Applicants are not usually retested with aptitude tests unless it is established that conditions affected their scores adversely so that a true measure was not obtained. Such circumstances as the forgetting of eyeglasses, extreme nervousness, or illness would justify retesting the individual as soon as it is possible to do so. In these instances an alternate form of the test should be used.

If a review of test records shows that an applicant has been previously tested, the length of the intervening time and the applicant's experiences during this period should be considered to determine whether the test results still reflect the applicant's potential. While aptitudes are relatively stable after a person reaches maturity, the factors of time and experience have been shown to affect an individual's aptitudes to some degree. For this reason, it is permissible to retest an individual with an alternate form of the test, if it appears that the passage of time or his intervening experience may have affected the level of his aptitudes as measured by the last test. These intervening experiences may be physical, educational, or cultural in nature.

2. Proficiency tests

Persons may be retested after a training course, considerable home practice, or experience if it would appear that they have improved. Conversely, if they had not used the skill for sometime, a retest may be desirable to see how much of that skill they have retained. Here, also, an alternate form of the test should be used, if one is available.

D. Can GATB and NATB Results be Used in Selection?

The GATB and the NATB are counseling tools, and and the OAP's are to be used only for that purpose. Since they are groups of occupations with varying aptitude requirements, they are not specific enough to be used for selection. However, the Individual Aptitude Profile of an applicant who has been given either test may be matched against any of the SATB norms. Hence, in this sense, GATB and NATB results may be properly used in selection.

As a time-saving device for the testing unit, applicants scheduled for two or more SATB's are often tested in a group with other applicants taking the GATB. This results in a complete aptitude profile, which may then be matched against any of the SATB norms desired. However, such applicants are not counseled and nothing is done with the OAP's.

III. INTEGRATING TEST RESULTS WITH OTHER INFORMATION

Test results provide information about several areas of applicant's assets and limitations. This information must be considered together with information from other sources.

A. Evaluating Test Results

When the test results are received from the testing unit, the interviewer or counselor reviews them in terms of specific occupations and fields of work for which the applicant has qualified. He decides what further information he needs from the applicant and what information he should give him.

The interviewer will consider the test results as they aid in classification and selection. The counselor will consider them as they aid in developing a realistic goal and plan with the applicant.

B. Test Interpretation

The interpretation of test scores is not a mechanical process. Although aptitude tests offer a more exact method of determining an applicant's potential abilities than any subjective means, aptitude test results must be regarded as only one of several factors to be considered. Among these other factors are education, leisure-time activities, interests, special skills, knowledge, and physical capacity required for successful performance in the particular job. In the final selection, the applicant's qualifications as determined from the interview, test results, and other data must be evaluated in terms of the requirements set forth in the employer's order and the job duties.

C. Classification

Test results are also taken into consideration in assigning a proper classification which reflects the skills and potential abilities of the applicant and placing him on a job which utilizes them.

IV. REPORTING TEST RESULTS

Test results for the GATB and NATB should be reported to a counselee in terms of his potential for fields of work or kinds of jobs. Because test scores are significant only when considered in relation to all other pertinent factors about the individual, and because the applicant has not been trained to interpret them, the counselor must not give test scores to applicants. (See ES Manual, Part II, section 9180 D.)

A. To Applicants

The policy with respect to reporting SATB results is similar. The applicant should not be given his actual test scores nor his letter grades (H, M or L) as he would not know how to interpret them. The discussion of SATB results should be in general terms regarding applicant's chances for success and employment in that occupation. For example, if he made a grade of H, he may be told that he appears to have the abilities needed to learn that occupation, or that his chances for success in that occupation are good.

Results of clerical skills tests should be discussed with the applicant in terms of the marketability of his skills and whether or not additional training would seem necessary or to his advantage. If an applicant asks about his test results on the typing test, the interviewer may give him the words per minute and the number of errors. (See ES Manual, Part II, section 9180 I.)

B. To Employers

When applicants have been selected with the use of SATB's it is usually adequate to note on the referral card that the applicant met the aptitude requirements for the occupation for which he is being referred. Test scores or aptitude profiles are not given.

At the option of the State agency, test results may be reported to employers in terms of letter grades H, M. or L, except for those SATB's not yet validated for, or approved for use with, minority groups. To prevent discrimination, the employer is not told whether the SATB's used in selection were derived from the GATB or the NATB.

A third option, when an applicant's test results on two or more SATB's are to be reported to employers (and certain other organizations) is by

the use of the Aptitude Test Battery Indicator. This device provides a means for comparing an applicant's performance on two or more SATB's with the test norms (cutting scores) of these tests. The applicant's test performance on each aptitude of an SATB is indicated by a confidence band, extending one standard error of measurement above and below the actual score.

/***/ Pass around a sample of a completed Aptitude Test Battery Indicator for trainees to see.

Obviously, the employer (or other organization) would have to be trained on how to interpret the Indicator. Note that the Indicator is not to be used in reporting to joint apprenticeship committees. (See ES Manual, Part II, section 9180)

Test scores of clerical skills tests are usually not reported to employers. However, if specifically requested, an applicant's typing speed may be reported along with the number of errors and his numerical grade. Numerical grades on the dictation, spelling, statistical typing, and medical or legal spelling may likewise be reported. Actual scores on the dictation test should not be reported, as such scores are not comparable to scores on transcript dictation tests widely used by schools and in business.

V. TESTING EMPLOYED WORKERS

The general rule is that employed workers are not tested for purposes of promotion, demotion, transfer, or dismissal, as these are actions for which the employer should assume full responsibility. However, there are some exceptions to this overall policy. USES tests may be used by local employment service offices for testing an employer's workers under the following circumstances:

1. When a plant is undergoing or soon will undergo technological change. Specific aptitude testing will be done only in instances where it will help alleviate a problem of potential unemployment caused by plant conversion to operations involving new processes and equipment not previously used in this plant.

2. When employed workers are being considered by management for upgrading into existing unfilled

positions within the plant, which require different skills, knowledges, and abilities not required in the positions presently held by these workers. ES tests should not be used to assist an employer in making direct-line promotions when the functions do not change except in level of responsibility.

3. When employed workers are being considered by management for training within the plant in a shortage occupation.

Each of these circumstances is restricted by certain conditions which must be met before testing may be done. (For complete information see ES Manual, Part II, section 9155.)

There are some additional circumstances in which employed workers may be tested, such as when they are being considered for on-the-job training under MDTA or for apprenticeship job openings.

There is another instance in which the Employment Service may provide an employer with test information at the time of referral, which may be used subsequently for transfer or promotion purposes. Some employers hire for a "labor pool" from which assignments are made to various entry jobs. Other employers like new hires to have progressive experience. In such instances it is permissible to match each applicant's profile against several SATB's and notify the employer by telephone or letter at the time of referral of the occupations for which the applicant was tested and met the aptitude requirements.

For example, a local bank may be interested in knowing whether an inexperienced applicant, who is being referred by the local office as a Clerk, General Office also meets the aptitude requirements for Bookkeeping Machine Operator and Teller. While this information could be given by phone or letter, the referral card would indicate only that the applicant met the aptitude requirements for Clerk, General Office.

VI. RELEASE OF TESTS

A. For Operating Purposes

At the discretion of the State agency and on the approval of the Regional Manpower Administrator, certain USES occupational tests (GATB and NATB) may be released by the Employment Service to other organizations. The State agency should make every effort to provide the necessary testing services through its local offices. However, situations will arise in which it is necessary or desirable to release tests for direct use by other organizations. Typical situations in which release of tests might prove mutually beneficial are described in the ES Manual, Part II, sections 9700, 9701, and 9703.

1. The GATB may be released for use by trained counselors in high schools, colleges, universities, and nonprofit institutions as part of a vocational guidance program. Books I and II of the GATB, B-1001 or Books I and II of B-1002B are the forms to be used for such releases. However, B-1002A may be released for retesting purposes.

2. The entire NATB, Form A, may be released to qualified organizations.

3. USES clerical skills tests may not be released to any employer or organization. Much of the content of these tests is of a type which could be easily remembered and repeated and might thus become common knowledge. If this were to happen, the value of the tests would be greatly lessened.

If the preliminary conditions for the use of USES tests by an outside organization are satisfied, the Employment Service may enter into a written agreement with the organization making the request. Such agreements are subject to the approval of the Regional Manpower Administrator. (See ES Manual, Part II, sections 9702 and 9703 for samples of test release agreements.)

B. For Instruction or Information

It is permissible for State agencies to provide sample copies of the GATB, B-1002B, together with appropriate answer sheets, scoring stencils, and Manuals to a psychologist or other faculty member of college or university for instruction or information purposes. Since sections II, III, and IV of the Manual for the GATB are on unrestricted sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C., the State agency should inform the faculty member that additional copies may be purchased from that source. (See ES Manual, Part II, sections 9710-9711.) Samples of other USES tests may be provided on the same basis.

C. For Research

At the discretion of the State agency and upon approval of the Regional Manpower Administrator, USES tests may be released to universities and non-profit organizations for research purposes. A written release agreement and approval of the research design by the MA national office are also required. (See ES Manual, Part II, section 9721.)

VII. CONFIDENTIAL NATURE OF TESTS

Since USES tests would become useless if the answers to them were to become common knowledge, effort is made to prevent copies from getting into unauthorized hands.

Tests should be kept by and for those who use them. No person outside the Employment Service, unless specifically contracted with, or inside who is not directly concerned with them, should be given copies of the tests. Neither may tests be duplicated by anyone other than the USES national office or its authorized agent. Test materials, such as test booklets and scoring keys, should be kept in locked cabinets when not in use because of their confidential nature. (See ES Manual, Part II, section 9105.)

VIII. RESPONSIBILITIES UNDER FEDERAL REGULATIONS

The Employment Service has also been give specific responsibilities by Title 41, Code of Federal Regulations, Part 60-3, dated October 2, 1971 and entitled "Employee Testing and other Selection Procedures." In cases where the Employment Service uses tests as an aid in the selection and referral of applicants to employers with Federal contracts, a copy of the technical

report for the SATB being used, showing that the test battery has been validated for the occupation in question, is accepted as compliance with the regulation. No additional certification is necessary. When a compliance review is being made and the employer has been requested to produce evidence that tests being used in selection have been validated, the State Employment Service shall provide a copy of the appropriate report to the employer.

If requested by the employer and agreeable to the State agency, the State agency may provide copies of the technical reports for all batteries being used with the employer for the employer's files, even if a compliance review is not yet being made. (See ES Manual, Part II, section 9160.)

All test papers completed by applicants who are between 40 and 65 years of age must be kept for one year from the date of testing. If papers for such applicants are machine scored by NCS, their return must be requested. (See Part II, section 9452 F.)

PART SIX--REVIEW

REVIEW EXERCISES

This training unit has provided you with a broad orientation to employment service testing, which will be useful in many local office assignments. Before we conclude our session, let's try a review exercise to reemphasize some of the key points we have covered.

Have trainees turn to the review exercises on pages 21-25 of the Trainee's Handbook. To use as a review, call on trainees in turn to read a question orally and give the answer. Resolve any differences. For the true-false items, ask trainees to indicate the reason for each false statement. Suggest that trainees may want to write the correct answers in their books for future reference.

Following are the suggested answers to the exercises:

I

1. T	6. T	11. T	16. F	21. T
2. F	7. F	12. F	17. T	22. T
3. T	8. F	13. F	18. F	23. T
4. F	9. T	14. T	19. F	24. F
5. F	10. T	15. T	20. F	25. F

II

1. c	3. b	5. b	7. b	9. d
2. d	4. d	6. a	8. a	10. a

III

1. counseling, classification, selection
2. counseling, experimental battery, test development
3. manual dexterity, finger dexterity
4. jobs, training
5. 60, 80, 100
6. medical, legal
7. proficiency

8. GATB Screening Exercises
9. Aptitude Test Battery Indicator
10. Any one of the following:

    - Plant is undergoing technological change which will cause unemployment

    - Workers are being considered for upgrading to jobs requiring different skills, knowledges, and abilities

    - Workers are being considered for training in a shortage occupation

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